

CLAIMS:

1. A concrete pumping truck having a forward end and a rear end with a hopper carried at the rear end of the concrete pumping truck, the concrete pumping truck comprising an auxiliary axle system pivotally attached to the rear end of the truck adjacent the hopper, the auxiliary axle system comprising a pair of steerable wheels movable between a first position in contact with a ground surface and a second position elevated above the ground surface.
2. The concrete pumping truck of claim 1, wherein the auxiliary axle system comprises:
 - a U-shaped frame having a pair of spaced arms connected at one end to a cross member, the pair of spaced arms having a free end connected to a pair of spaced axles, the pair of spaced axles being pivotally connected to a respective one of the pair of steerable wheels;
 - a first connector arm and a second connector arm connected to the cross member and extending in a direction opposite the direction of the pair of spaced arms, the first and second connector arms pivotally mounted to a respective truck frame rail on the concrete pumping truck; and
 - means connected to a support surface of the concrete pumping truck and the U-shaped frame for moving the auxiliary axle system between the first position and the second position.
3. The concrete pumping truck of claim 2 and further comprising a mounting bracket connected to each of the truck frame rails at the rear end of the

concrete pumping truck, each mounting bracket connected to a housing containing a bearing, wherein the first connector arm and the second connector arm are pivotally connected to a respective bearing housing.

4. The concrete pumping truck of claim 2, wherein the means for moving the auxiliary axle system comprises at least one hydraulic cylinder connected between an outrigger support frame and the U-shaped frame.

5. The concrete pumping truck of claim 2 wherein each of the pair of steerable wheels comprises a steering arm connected to the wheel, the steering arm of each wheel being connected by a tie rod.

6. The concrete pumping truck of claim 5 wherein the tie rod is configured with a central portion and opposing end portions, the central portion of the tie rod being in a first plane and the opposing end portions being in a second plane spaced from the first plane.

7. An auxiliary axle system for a concrete pumping truck having a truck frame and a hopper carried at a rear end of the truck, the axle system comprising:

means connected to the truck frame for supporting a pair of wheels
in a spaced relationship from the rear end of the truck
adjacent to the hopper; and
means connected to a support structure of the concrete pumping
truck for raising and lowering the auxiliary axle system.

8. The auxiliary axle system of claim 7, wherein the means for supporting the pair of wheels comprises:

a pair of spaced short axles, each axle of the pair of axles being pivotally attached to a respective one of the pair of wheels;
a U-shaped frame having a base connected to a pair of arms, each arm of the pair of arms having a free end connected to a respective one of the pair of axles;
a first connector arm connected between a first frame rail of the truck frame and the base of the U-shaped frame; and
a second connector arm connected between a second frame rail of the truck frame and the base of the U-shaped frame, the first connector arm being spaced from the second connector arm.

9. The auxiliary axle system of claim 8, wherein the means for raising and lowering the auxiliary axle system comprises:

at least one hydraulic cylinder connected between the U-shaped frame and a support surface of the concrete pumping truck.

10. The auxiliary axle system of claim 9, wherein each arm of the pair of arms of the U-shaped frame comprise a pair of mounting flanges, a first end of the at least one hydraulic cylinder being connected between the pair of mounting flanges.

11. The auxiliary axle system of claim 9, wherein the support surface of the truck comprises an outrigger support frame connected to the truck frame at the rear end of the concrete pumping truck.

12. The auxiliary axle system of claim 8 and further comprising:
a steering arm connected to each wheel of the pair of wheels; and

a tie rod pivotally connected between each steering arm, the tie rod having opposing end portions connected to each steering arm, the opposing end portions being generally aligned with the hopper, the tie rod further having a central portion connected to each of the respective opposing end portions, the central portion configured to be spaced from the hopper.

13. An auxiliary axle system for a concrete pumping truck having a truck frame and an outrigger support frame connected to and elevated from the truck frame at a rear end of the concrete pumping truck adjacent to a hopper, the auxiliary axle system comprising:

- a pair of wheels located adjacent to the hopper;
- a pair of spaced short axles, wherein each axle of the pair of spaced axles is pivotally connected to a respective one of the pair of wheels;
- a pair of support arms, each support arm having a first end and a second end, the first end being connected to a respective one of the pair of spaced short axles and extending transverse from the pair of spaced short axles;
- a cross member connected to the second ends of the pair of support arms, the cross member being longitudinally spaced from the pair of wheels, the cross member and the pair of support arms defining a U-shaped frame;
- a first set of attachment arms connected between the cross member and a first truck frame rail of the truck frame and a second set of attachment arms connected between the cross member and a second truck frame rail; and

a lift mechanism connected between the U-shaped frame and a support surface of the concrete pumping truck.

14. The auxiliary axle system of claim 13, wherein the lift mechanism comprises at least one hydraulic cylinder connected to at least one of the pair of support arms.

15. The auxiliary axle system of claim 13, wherein the lift mechanism comprises a pair of hydraulic cylinders, each hydraulic cylinder of the pair being connected to a respective one of the support arms.

16. The auxiliary axle system of claim 13 and further comprising a tie rod connected between the pair of wheels, the tie rod having opposing end portions and a central portion defined by first and second spaced bends in the tie rod, the central portion configured to be spaced from the hopper when the auxiliary axle system is in a raised position.

17. The auxiliary axle system of claim 13 and further comprising a support plate connected to the cross member and the pair of support arms.